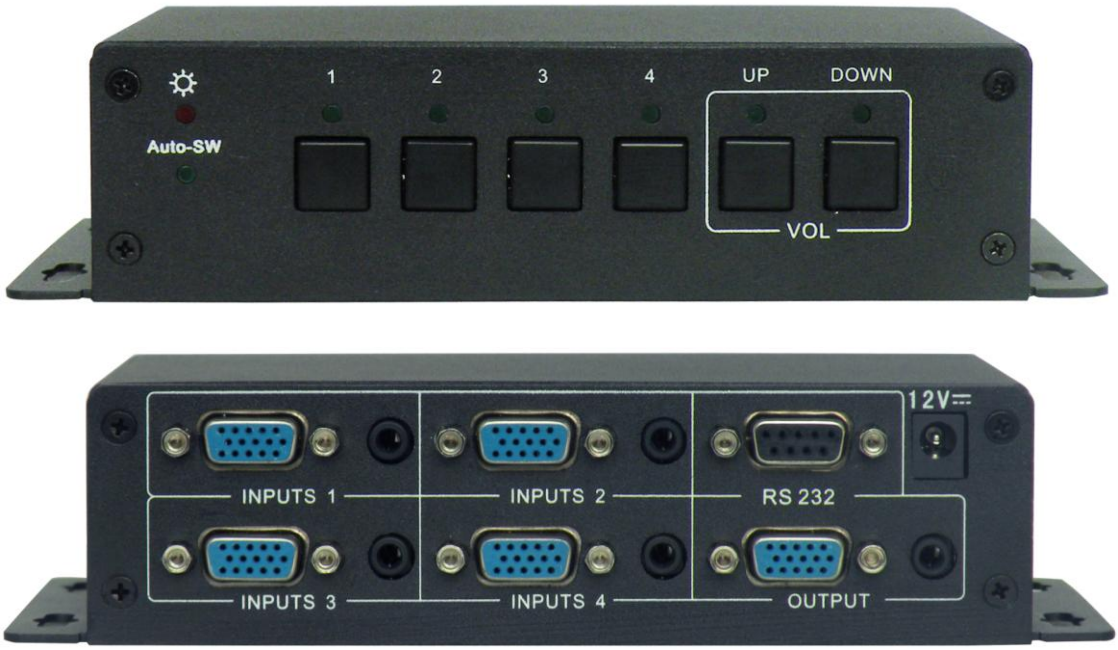
AS-41V™

4x1 VGA Switcher

User Manual



Manual Number: 100818

Aurora Multimedia

Safety and Notice

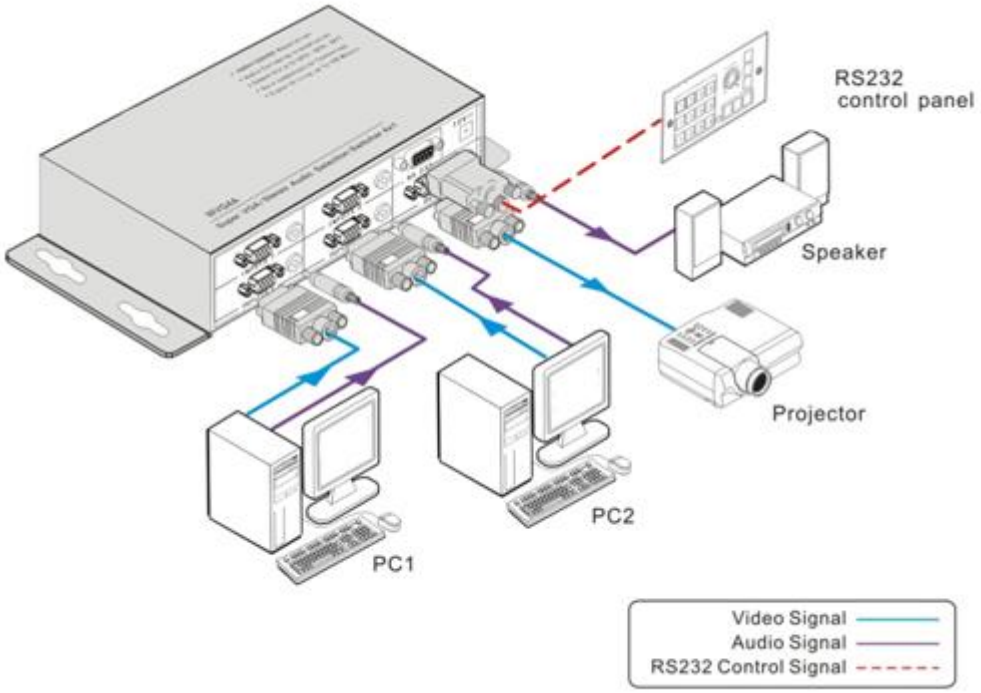
The **AS-41V**™ has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the AS-41V should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

Introduction

The **AS-41V** is the auto-switch VGA 4x1 selection switcher, which enables easy manual or auto switching between four computer video with stereo audio. It is compatible with PC resolutions up to 3200×2400@60MHz, and also supports HDTV. In addition, the AS-41V can easily switch other signal types such as YPbPr, Composite and S-Video using adaptor cables.

The audio is preset-able. The volume/Bass/Tremble can be controlled via RS232 and the audio can operate in break-away mode.



Features

- Automatic switching function. It continuously detects all the input sources and can switching to the prior source.
- Super Bandwidth: 1GHz (-3dB), fully loading. QUXGA, up to 3200×2400@60MHz.
- High Resolution: including QUXGA, QXGA, WQXGA, WQUXGA etc., up to 3200×2400@60 (-3dB).
- Compatible with RGBS, RGsB, HDTV, component video, S-video, and composite video signals.
- Audio break away switching, controlled via RS232.
- Audio following switching, sync-switch with the audio.
- Output volume 61 degrees controllable. Bass/Treble is separately controllable (15 degrees).
- RS232 serial control port.
- 6 buttons on the front panel for control, including volume control and auto-switch control.
- GCSSP (Gain Compensation and Synchronization Signal Proofread technology).
- Static resistant case with protection.
- Wall/Table-mountable aluminum enclosure.
- Internal international power supply (100Volt~240Volt AC, 50/60Hz).
- Fast switching speed.
- Front panel LED indicator, for power and working status.

Specifications & Package Contents

Model Name	AS-41V™
Video Input	
Input	4 VGA
Input Connector	VGA (15 pin HD) Female
Video Signal	RGBHV, RGBS, RGsB, RsGsBs, YPbPr, S-Video, composite video
Resolution	3200x2400 @ 60Hz(-3dB) 0~10MHz is +0.1dB to -0.1dB, 0~130MHz is +6dB to -0.8dB
Return Loss	-30dB@5MHz
Switching Speed	200ns (Max.)
Video Gain	0dB
Video Output	
Output	1 VGA
Output Connector	VGA (15 pin HD) Female
Video Signal	RGBHV, RGBS, RGsB, RsGsBs, YPbPr, S-Video, composite video
Bandwidth	1GHz (-3dB) full loading
Crosstalk	-50dB@5MHz
Input/ Output Level	0.5Vp-p ~ 2.0Vp-p
I/O Impedance	75Ω
Audio Input	
Input	4 stereo audio
Input Connector	3.5mm mini jack connector
Impedance	>10Ω
Frequency Response	20Hz~20K Hz
CMRR	>90dB @20Hz to 20K Hz
Channel Separation	>80dB @1KHz
ISwitching	Audio Break-away
Audio Output	
Output	1 stereo audio
Output Connector	3.5mm mini jack connector
Impedance	50Ω
Output Volume	61 degree controllable(0~61)
Output Bass	15 degree controllable(-7~+7)
Output Treble	15 degree controllable (-7~+7)
Control Port	
Type	RS-232
Connector	DB9 pin Female (2 = TX, 3 = RX, 5 = GND)

Mechanical		
Housing		Metal enclosure
Dimensions [L x W x H]	Model	160 x 100 x 44mm [6.3” x 3.94” x 1.73”]
	Package	
Weight	Model	.5Kg [1.10 lbs]
	Package	
Fixedness		Wall Mount Key holes
Power supply		12v DC
Power consumption		10 Watt Max
Operation temperature		0~40°C [32~104°F]
Storage temperature		-20~70°C [-4~158°F]
Relative humidity		10~90% RH [no condensation]
Package Contents		1x AS-41V 1x 12V 1A PSU 1x User Manual

Front panel operation

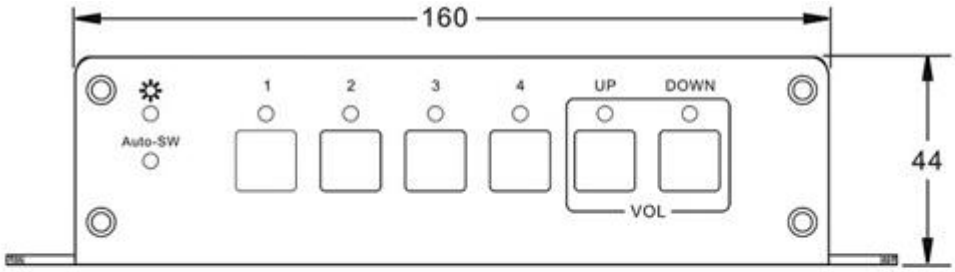
Press the buttons “1,2,3,4” to switch the inputs, audio/video sync-switching.

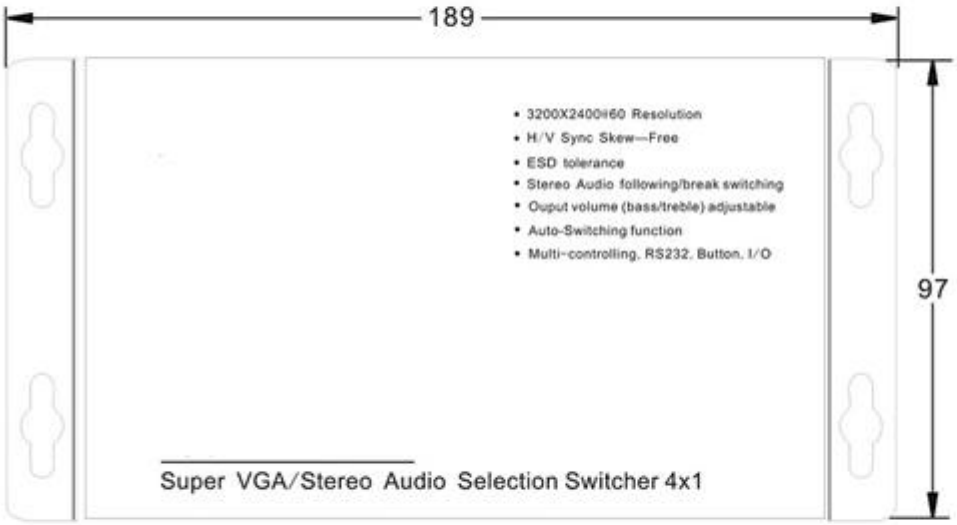
Press the buttons “Up”, “Down” to control the output volume up/down. (not including the bass/treble setting)

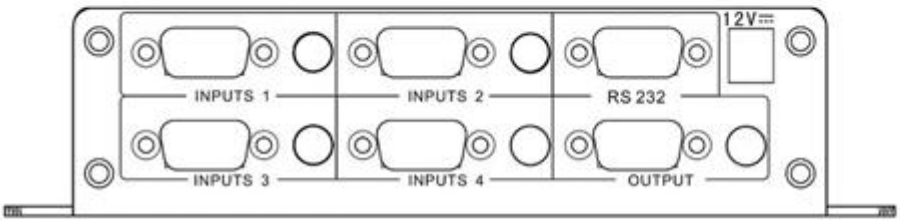
Press the button “1” for 3 seconds, the WVG4A PA will enter the auto-switching mode. The LED light of “Auto-SW” will be on. Please check the index”5.2” for the auto-switching mode. Pressing the button “1” for another 3 seconds, to quit the auto-switching and return to the regular manual switching. The LED light of “Auto-SW” will be off.

Under the “auto-switching” mode, the other front panel buttons can’t be used. But, the RS232 port is still available for controlling.

Enclosure Drawing







Communciation Protocol

Baud rate: 9600 Data bit: 8 Stop bit: 1 Parity bit: none
DE-9 [9-pin D-sub female] 2= TX, 3=RX, 5=GND

Command Set:
! is the start character to active a command
? is the start character to query status
~ is the start character of the response
/x0D (<cr> aka carriage return) is the end character

Commands (ASCII)	Function Description	Return Code (ASCII)
!AV01<cr>	Switching to input 1 , (Audio/Video)	~AV01<cr>
!AV02<cr>	Switching to input 2 , (Audio/Video)	~AV02<cr>
!AV03<cr>	Switching to input 3 , (Audio/Video)	~AV03<cr>
!AV04<cr>	Switching to input 4 , (Audio/Video)	~AV04<cr>
! V01<cr>	Switching to input 1 of Video	~V01<cr>
! V02<cr>	Switching to input 2 of Video	~V01<cr>
! V03<cr>	Switching to input 3 of Video	~V03<cr>
! V04<cr>	Switching to input 4 of Video	~V04<cr>
!A01<cr>	Switching to input 1 of Audio	~A01<cr>
!A02<cr>	Switching to input 2 of Audio	~A02<cr>
!A03<cr>	Switching to input 3 of Audio	~A03<cr>
!A04<cr>	Switching to input 4 of Audio	~A04<cr>
!UMAV<cr>	Unmute the output of video/audio	~UMAV<cr>
!UMV<cr>	Unmute (cut) the output of video	~UMV<cr>
!UMA<cr>	Unmute (cut) the output of audio	~UMA<cr>
!MAV<cr>	Mute(cut) the output of video/audio	~MAV<cr>
!MV<cr>	Mute(cut) the output of video	~MV<cr>
!MA<cr>	Mute(cut) the output of audio	~MA<cr>
?INFO1<cr>	Checking the working status (switching status, volume status, audio setting status.)	~V01<cr> ~A01<cr> ~VO30<cr> ~BS00<cr> ~TR00<cr>
!AS<cr>	Jump to the Auto-Switching mode	~AS<cr>

!MS<cr>	**Jump to the regular switching mode**	**~MS<cr>**
!VO[XX] <cr>	**Volume setting, the [XX] ranging from 00~61 (algorism)**	**~VO[XX] <cr>**
!BS[XX] <cr>	**Bass setting, the [XX] ranging from 00~15 (algorism)**	**~BS[XX] <cr>**
!TR[XX] <cr>	**Treble setting, the [XX] ranging from 00~15 (algorism)**	**~TR[XX] <cr>**
!AP01<cr>	**Volume Up (61 degrees)**	**~AP01<cr>**
!AP02<cr>	**Volume Down (61 degrees)**	**~AP02<cr>**
!AP03<cr>	**Bass Up (15 degrees)**	**~AP03<cr>**
!AP04<cr>	**Bass Down (15 degrees)**	**~AP04<cr>**
!AP05<cr>	**Treble Up (15 degrees)**	**~AP05<cr>**
!AP06<cr>	**Treble Down (15 degrees)**	**~AP06<cr>**
?INFO2<cr>	**Initialization the setting. It return to the regular switching (switching/volume/bass/treble)**	**~V01<cr>** **~A01<cr>** **~VO30<cr>** **~BS00<cr>** **~TR00<cr>**

Auto Switching Fuction:

Press the button "input 1" for 2 seconds, the AS-41V will jump to the "Auto-Switching" function.

The LED of "Auto-SW" in the front panel will be on and vice versa.

Auto-Switching principle

1: Priority of the new connection:

When you connect a new valid VGA source to the AS-41V, under Auto-Sw mode, the AS-41V will switch to this new source.

2: Priority of power reboot or VGA signal removing:

When the power is rebooted under the auto-Sw mode, the AS-41V will detect the 4 VGA inputs, ranging from input1, input2, input3, input4. When it finds a valid VGA signal, it will switch to this channel.

When the displaying input is removed under the auto-Sw mode, the AS-41V will detect the 4 VGA inputs, ranging from input1, input2, input3, input4. When it finds a valid VGA signal, it will switch to this channel.

Limited 3 Year Warranty

Aurora Multimedia Corp. ("Manufacturer") warrants that this product is free of defects in both materials and workmanship for a period of 3 years as defined herein for parts and labor from date of purchase. Motorized mechanical parts (Hard Drives, DVD, etc), mechanical parts (buttons, doors, etc), remotes and cables are covered for a period of 1 year. Batteries are not covered by this warranty. During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with same or similar model) at our option without charge for parts or labor for the specified product warranty period.

This warranty shall not apply if any of the following:

A) The product has been damaged by negligence, accident, lightning, water, act-of-God or mishandling; or,

B) The product has not been operated in accordance with procedures specified in operating instructions: or,

C) The product has been repaired and or altered by other than manufacturer or authorized service center; or,

D) The product's original serial number has been modified or removed: or,

E) External equipment other than supplied by manufacturer, in determination of manufacturer, shall have affected the performance, safety or reliability of the product.

F) Part(s) are no longer available for product.

In the event that the product needs repair or replacement during the specified warranty period, product should be shipped back to Manufacturer at Purchaser's expense. Repaired or replaced product shall be returned to Purchaser by standard shipping methods at Manufacturer's discretion. Express shipping will be at the expense of the Purchaser. If Purchaser resides outside the contiguous US, return shipping shall be at Purchaser's expense.

No other warranty, express or implied other than Manufacturer's shall apply.

Manufacturer does not assume any responsibility for consequential damages, expenses or loss of revenue or property, inconvenience or interruption in operation experienced by the customer due to a malfunction of the purchased equipment. No warranty service performed on any product shall extend the applicable warranty period.

This warranty does not cover damage to the equipment during shipping and Manufacturer assumes no responsibility for such damage.

This product warranty extends to the original purchaser only and will be null and void upon any assignment or transfer.

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